

CLAIMS

1. A method of examining schizophrenia, which comprises measuring concentration(s) of (a) D-serine, (b) L-serine or (c) D-serine and L-serine in a biological sample.
2. The examination method of claim 1, wherein an index is that the D-serine concentration in a biological sample is lower than an average of said concentration in a healthy individual or a group of healthy individuals.
3. The examination method of claim 1, wherein an index is that the D-serine concentration in a biological sample is lower than an average-standard deviation of the concentration in a healthy individual or a group of healthy individuals.
4. The examination method of claim 1, wherein an index is that the D-serine concentration in a biological sample is lower than the average + standard deviation of said concentration in an individual with schizophrenia or a group of individuals with schizophrenia.
5. The examination method of claim 1, wherein an index is that the L-serine concentration in a biological sample is higher than an average of said concentration in a healthy individual or a group of healthy individuals.
6. The examination method of claim 1, wherein an index is a ratio of the D-serine concentration to the total serine concentration in a biological sample.

7. The examination method of claim 6, wherein an index is that the ratio of the D-serine concentration to the total serine concentration in a biological sample is lower than an average of said ratio in a healthy individual or a group of healthy individuals.

8. The examination method of claim 6, wherein an index is that the ratio of the D-serine concentration to the total serine concentration in a biological sample is lower than an average-standard deviation of said ratio in a healthy individual or a group of healthy individuals.

15 9. The examination method of claim 6, wherein an index is that the ratio of the D-serine concentration to the total serine concentration in a biological sample is lower than an average+standard deviation of said ratio in an individual with schizophrenia or a group of 20 individuals with schizophrenia.

10. The examination method of any of claims 1 to 9, further comprising selecting patients with schizophrenia for whom the D-serine therapy is effective.

25 11. The examination method of any of claims 1 to 10, which uses an amino acid labeling reagent.

30 12. The examination method of claim 11, further comprising steps of contacting an amino acid labeling reagent with a biological sample to label serine and separating or quantifying the labeled D-serine and the labeled L-serine.

13. The examination method of claim 12, further comprising a step of separating and quantifying the labeled serine before the step of separating or quantifying the labeled D-serine and the labeled L-serine.

14. The examination method of claim 12, wherein the labeled D-serine and the labeled L-serine are separated or quantified using a column or capillary.

10 15. The examination method of claim 13, wherein the labeled D-serine and the labeled L-serine are separated or quantified using a column or capillary.

15 16. The examination method of claim 13, wherein the labeled serine is separated or quantified using chromatography.

20 17. The examination method of claim 15, wherein the labeled serine is separated or quantified using chromatography.

25 18. The examination method of claim 14, 15 or 17, wherein the column or capillary is a column or capillary for optical resolution.

19. The examination method of claim 16 or 17, wherein the chromatography is high performance liquid chromatography.

30 20. The examination method of claim 17, wherein the chromatography is high performance liquid chromatography and the column or capillary is a column or capillary for optical resolution.

21. The examination method of any of claims 11 to 20, wherein the amino acid labeling reagent is an amino acid fluorescence-labeling reagent.

5 22. The examination method of claim 21, wherein the amino acid fluorescence-labeling reagent is 4-fluoro-7-nitro-2,1,3-benzoxadiazole.

10 23. A reagent for examining schizophrenia, which comprises an amino acid labeling reagent.

24. The reagent of claim 23, wherein the amino acid labeling reagent is an amino acid fluorescence-labeling reagent.

15 25. The reagent of claim 24, wherein the amino acid fluorescence-labeling reagent is 4-fluoro-7-nitro-2,1,3-benzoxadiazole.

20 26. A method of examining or diagnosing schizophrenia, which comprises measuring concentrations of D-serine and L-serine in serum and using an increase or decrease in the concentration as an index.

25 27. A method of examining or diagnosing schizophrenia, which comprises measuring a D-serine concentration in serum and using a decrease in the concentration as an index.

30 28. A method of examining or diagnosing schizophrenia, which comprises measuring an L-serine concentration in serum and using an increase in the concentration as an index.